

Attorney Docket No.: 00CON161P

**In the Claims:**

**Claim 1 (currently amended):** A method comprising steps of:

forming a layer over a transistor gate region and a field oxide region, said transistor gate region being situated over a well and said field oxide region not being situated over said well, wherein said field oxide region and said well are situated in a substrate;

forming a doping barrier above said layer over said field oxide region after said step of forming said layer;

doping said layer over said transistor gate region with a first dose of a first dopant after said step of forming said doping barrier, wherein said dose of said first dopant is a dosage greater than required to result in said layer over said transistor gate region having transistor gate electrical properties, wherein said first dopant has a first conductivity type;

removing said doping barrier after said step of doping said layer over said transistor gate region with said first dose of said first dopant;

doping said layer over said transistor gate region and said field oxide region with a second dose of a second dopant so as to form a high resistivity resistor in said layer over said field oxide region after said step of removing said doping barrier, wherein said second dopant has a second conductivity type, wherein said first dose of said first dopant is ~~significantly~~ higher than said second dose of said second dopant such that said transistor gate electrical properties are unaffected by said second dose of said second

Attorney Docket No.: 00CON161P

dopant;

forming a silicide blocking oxide layer over an inner portion of said layer over said field oxide region after said step of doping said layer over said transistor gate region and said field oxide region with said second dose of said second dopant;

doping an outer portion of said layer over said field oxide region with a third dopant so as to form a high-doped region in said outer portion of said layer over said field oxide region after said step of forming said silicide blocking oxide layer over said inner portion of said layer over said field oxide region, wherein said third dopant has said second conductivity type;

fabricating a contact region for said high resistivity resistor over said high-doped region in said outer portion of said layer over said field oxide region after said step of doping an outer portion of said layer over said field oxide region, wherein said contact region comprises a silicide.

**Claim 2 (canceled).**

**Claim 3 (original):** The method of claim 1 wherein said layer comprises polycrystalline silicon.

**Claim 4 (previously presented):** The method of claim 1 wherein said transistor gate region is a gate of an PFET.

Attorney Docket No.: 00CON161P

**Claim 5 (previously presented):** The method of claim 1 wherein said transistor gate region is a gate of an NFET.

**Claim 6 (original):** The method of claim 1 wherein said field oxide comprises silicon dioxide.

**Claim 7 (original):** The method of claim 1 wherein said first dopant is an N type dopant.

**Claim 8 (original):** The method of claim 7 wherein said N type dopant comprises phosphorous.

**Claim 9 (previously presented):** The method of claim 1 wherein said first dopant comprises phosphorous at a dose of approximately  $6.5 \times 10^{15}$  atoms per square centimeter.

**Claim 10 (original):** The method of claim 1 wherein said second dopant is a P type dopant.

**Claim 11 (original):** The method of claim 10 wherein said P type dopant comprises boron.

**Claim 12 (previously presented):** The method of claim 1 wherein said second dopant comprises boron at a dose of approximately  $1.0 \times 10^{15}$  atoms per square centimeter.

**Claim 13 (canceled).**

**Claim 14 (currently amended):** A method comprising steps of:

depositing a polycrystalline silicon layer on a chip, said polycrystalline silicon layer including a gate region and a resistor region, said gate region being situated over a well and said resistor region not being situated over said well, wherein said field oxide region and said well are situated in a substrate;

forming a doping barrier above said polycrystalline silicon layer after said step of depositing said polycrystalline silicon layer so as to prevent doping of said resistor region of said polycrystalline silicon layer;

doping said polycrystalline silicon layer with a first dose of a first dopant after said step of forming said doping barrier, wherein said dose of said first dopant is a dosage greater than required to result in said layer over said gate region having transistor gate electrical properties, wherein said first dopant has a first conductivity type;

removing said doping barrier after said step of doping said polycrystalline silicon layer with said first dose of said first dopant;

doping said polycrystalline silicon layer with a second dose of a second dopant

Attorney Docket No.: 00CON161P

after said step of removing said doping barrier so as to form a high resistivity resistor in said resistor region of said polycrystalline silicon, wherein said second dopant has a second conductivity type, wherein said first dose of said first dopant is ~~significantly~~ higher than said second dose of said second dopant such that said transistor gate electrical properties are unaffected by said second dose of said second dopant;

forming a silicide blocking oxide layer over an inner portion of said polycrystalline silicon layer over said field oxide region after said step of doping said polycrystalline silicon layer with said second dose of said second dopant;

doping an outer portion of said resistor region of said polycrystalline silicon layer with a third dopant after said step of forming said silicide blocking oxide layer so as to form a high-doped region in said outer portion of said resistor region, wherein said third dopant has said second conductivity type;

fabricating a contact region over said high-doped region in said outer portion of said resistor region of said polycrystalline silicon layer after said step of doping said outer portion of said resistor region of said polycrystalline silicon layer, said contact region being electrically connected to said resistor region, wherein said contact region comprises a silicide.

**Claim 15 (original):** The method of claim 14 wherein said doping barrier comprises photoresist.

Attorney Docket No.: 00CON161P

**Claim 16 (canceled).**

**Claim 17 (previously presented):** The method of claim 14 wherein said step of doping said polycrystalline silicon layer with a first dopant comprises doping said gate region.

**Claim 18 (original):** The method of claim 14 wherein said first dopant is an N type dopant.

**Claim 19 (original):** The method of claim 18 wherein said N type dopant comprises phosphorous.

**Claim 20 (previously presented):** The method of claim 14 wherein said first dopant comprises phosphorous at a dose of approximately  $6.5 \times 10^{15}$  atoms per square centimeter.

**Claim 21 (original):** The method of claim 14 wherein said second dopant is a P type dopant.

**Claim 22 (original):** The method of claim 21 wherein said P type dopant comprises boron.

Attorney Docket No.: 00CON161P

**Claim 23 (previously presented):** The method of claim 14 wherein said second dopant comprises boron at a dose of approximately  $1.0 \times 10^{15}$  atoms per square centimeter.

**Claims 24-25 (canceled).**